

AMENDMENTS TO THE CLAIMS

Claims 1-4 (cancelled).

5. (Currently Amended) A bale forming machine for baling agricultural crops of a type having a frame and a rotor operatively rotatably attached to said frame for moving a windrow of crop material into a baling chamber comprising:

a power train operatively connected to a portion of the bale forming machine that forms a bale in the baling chamber, said power train also being operatively attached to a rotor which moves a crop material toward the baling chamber;

a clutch selectively operatively attached to the power train and the rotor for selectively attaching or detaching said power train to said rotor;

a reversing mechanism operatively attached to said frame for selectively reversing the direction of rotation of said rotor between said first rotary direction and a second rotary direction for causing crop to move away from said baling chamber; and

an actuator comprising a hydraulic cylinder operatively attached to said clutch and to said reversing mechanism for operating both (a) said clutch to selectively connect or disconnect the rotor from the power train and (b) said reversing mechanism to selectively reverse the rotor without disconnecting the power train from the portion of the bale forming machine that forms a bale in the baling chamber.

6. (Currently Amended) A method of using a bale forming machine comprising:

using a power train on the bale forming machine to operate a part of a bale forming machine which forms a bale in a bale forming chamber to rotate a rotor during a normal operation of said bale forming machine for moving a crop into the bale forming chamber;

using an actuator which includes a hydraulic cylinder to cause a clutch to detach said power train from said rotor if said bale forming machine becomes plugged with crop material without detaching the power train from that part of a bale forming machine which forms a bale in a bale forming chamber; and

also using said actuator to cause a reversing mechanism to reverse the rotary direction of said rotor to a second rotary direction to cause crop material to move away from said baling chamber.

7. (Currently Amended) A method of using a bale forming machine of a type for baling agricultural crops having a frame and a rotor operatively rotatably attached to said frame for moving a windrow of crop material into a baling chamber and a power train to operate a part of the bale forming machine which forms a bale in the baling chamber and to provide power to rotate said rotor in a first rotary direction to move the crop material toward the baling chamber and a clutch selectively operatively attached to the power train for selectively attaching or detaching said power train to said rotor with an actuator which includes a hydraulic cylinder,

said method comprising:

using said actuator to cause said clutch to attach the power train to operate the bale forming machine to pick up a windrow of crop;

whenever said rotor becomes plugged with excess crop material, using said actuator to cause said clutch to disconnect the power train from that part of the bale forming apparatus which rotates the rotor without disconnecting the power train from that part of the bale forming machine which forms a bale in the baling chamber; and

using said actuator to reverse the direction of rotation of said rotor between said first rotary direction and a second rotary direction for causing crop to move away from said baling chamber.

8. (New) A baler with crop formation elements that are powered by rotating shafts including a crop pickup, a crop chopping roller, and bale formation rollers mounted on a frame and operatively connected to a driveline that transfers power to the rotating shafts with a clutch that selectively connects or disconnects a first rotating shaft that powers the crop chopping roller having a normal rotary operating direction, the driveline comprising a reverser actuator being operatively connected to said clutch and being selectively operatively connected to said first rotating shaft, said actuator having:

a first operating position wherein the actuator is not connected to said first rotating shaft and the clutch is engaged with the driveline to transfer power from the driveline to the first rotating shaft;

a second position wherein the actuator is connected to the said first rotating shaft and the clutch is operatively engaged with the first rotating shaft in a first rotary position

of the first rotary shaft whereby the first rotary shaft is disengaged from the driveline whereby power is not transferred from the driveline to the first rotating shaft; and

a third position wherein the actuator is operatively engaged with the first rotating shaft and the clutch is disengaged from the driveline whereby power is not transferred from the driveline to the first rotating shaft and the first rotating shaft has been moved to a second rotary position as the actuator moves from the second to the third position, said crop chopping roller being operatively attached to the first rotating shaft whereby the crop chopping roller is rotated in a direction opposite to the normal rotary operating direction as the actuator moves from the second to the third position.

9. (New) A baler with crop formation elements that are powered by rotating shafts including a crop pickup, a crop chopping roller, and bale formation rollers mounted on a frame and operatively connected to a driveline that transfers power to the rotating shafts with a clutch that selectively connects or disconnects a first rotating shaft that powers the crop chopping roller in a normal operating direction, the driveline comprising a reverser actuator operatively connected to said clutch and selectively operatively connected to said first rotating shaft such that:

in a first position the actuator is not connected to said first rotating shaft and the clutch is engaged such that power is transferred from the driveline to the first rotating shaft;

in a second position the actuator is connected to the first rotating shaft and the clutch is disengaged such that power is not transferred from the driveline to the first rotating shaft; and

in a third position the actuator is connected to the said first rotating shaft and the clutch is disengaged such that power is not transferred from the driveline to the first rotating shaft such that as the actuator moves from the second to the third position the crop chopping roller is rotated in a direction opposite to the normal operating direction.